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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,811	01/29/2001	Steven Michael Bellovin	2000-0008	7823

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EXAMINER	
BAUM, RONALD	

ART UNIT	PAPER NUMBER
2136	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/771,811	BELLOVIN, STEVEN MICHAEL	
	Examiner	Art Unit	
	Ronald Baum	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in reply to applicant's correspondence of 04 November 2004.

2. Claims 1-18 are pending for examination.

3. Claims 1-18 remain rejected.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-18 remain rejected under 35 U.S.C. 102(e) as being anticipated by Coss et al, U.S. Patent 6,098,172.

5. As per claim 1; "A method of processing packets at a firewall in a packet-switched network comprising:

receiving an outbound packet from a process group network address; and

authorizing subsequent inbound packet traffic destined for the process group network address [ABSTRACT, col. 1,lines 59-col. 2,line 41, col. 4,lines 17-col. 9,line 33, whereas the 'stateful' and dependency mask packet filtering aspects utilizing rules/rule sets that allow for 'rule processing of subsequent packets' in multiple domain with 'included' address ranges (i.e., group network address), and additionally the 'session key' cache relationships to the rules

searching, constitutes authorizing subsequent packet received as a function of a previous one going out.],

wherein said process group network address is assigned to a transient host process group [ABSTRACT, col. 1,lines 59-col. 2,line 41, col. 4,lines 17-col. 9,line 33, whereas the 'caching rule' processing utilized for similar packet processing on a per network session basis (i.e., col. 2,lines 5-41), the '... exemplary dynamic rules include a "one-time" rule ...' (i.e., col. 2,lines 29-41), and, '... FTP control session ... only a limited time period ...' (i.e., col. 9,lines 15-34), constitutes a transient relationship (i.e., 'process group network address is assigned to a transient host process group').].";

Further, as per claim 10; this claim is the software computer-readable medium claim for the method claim 1 above, and is rejected for the same reasons provided for the claim 1 rejection.

6. Claim 2 ***additionally recites*** the limitation that; "The invention of claim 1 further comprising the subsequent step of

canceling authorization for subsequent inbound packet traffic destined for the process group network address after a period of time.".

The teachings of Coss et al suggest such limitations (ABSTRACT, col. 1,lines 59-col. 2,line 41, col. 4,lines 17-col. 9,line 33, col. 9,lines 15-34, col. 10,lines 60-63, whereas the "time limited rules...for a specified time period", "threshold rules" authorization upon specific conditions, rule application as a function of "the time of day or day of the week.", FTP proxy session "made active for only a limited time", and "dynamic rules apply for the life of the session" deal with this limitation.);

Further, as per claim 11; this claim is the software computer-readable medium claim for the method claim 2 above, and is rejected for the same reasons provided for the claim 2 rejection.

7. Claim 3 ***additionally recites*** the limitation that; "The invention of claim 2 wherein the outbound packet begins a connection protocol and authorization is canceled after the connection terminates.".

The teachings of Coss et al suggest such limitations (ABSTRACT, col. 1,lines 59-col. 2,line 41, col. 4,lines 17-col. 9,line 33, col. 9,lines 15-34, col. 10,lines 60-63, whereas the dependency mask packet filtering aspects utilizing rules for the first packet of a network session, the "session key" cache relationships to the rules searching, FTP proxy session "made active for only a limited time", and "dynamic rules apply for the life of the session" deal with this limitation.);

Further, as per claim 12; this claim is the software computer-readable medium claim for the method claim 3 above, and is rejected for the same reasons provided for the claim 3 rejection.

8. Claim 4 ***additionally recites*** the limitation that; "The invention of claim 1 wherein the addresses are expressed as IPv4 address.".

The teachings of Coss et al suggest such limitations (ABSTRACT, col. 1,lines 59-col. 2,line 41, col. 4,lines 17-col. 9,line 33, col. 9,lines 15-34, col. 10,lines 60-63, whereas the Internet network embodiments inherently utilizing IPv4, and IPv6 (i.e., in "Tunnel requirements" and "IPSEC requirements" tunneling and security aspects) deal with this limitation.);

Further, as per claim 13; this claim is the software computer-readable medium claim for the method claim 4 above, and is rejected for the same reasons provided for the claim 4 rejection.

9. Claim 5 ***additionally recites*** the limitation that; "The invention of claim 1 wherein the addresses are expressed as IPv6 addresses, wherein a portion of the address is reserved to identify said host process group.".

The teachings of Coss et al suggest such limitations (ABSTRACT, col. 1,lines 59-col. 2,line 41, col. 4,lines 17-col. 9,line 33, col. 9,lines 15-34, col. 10,lines 60-63, whereas the Internet network embodiments inherently utilizing IPv4, and IPv6 (i.e., in "Tunnel requirements" and "IPSEC requirements" tunneling and security aspects) deal with this limitation.);

Further, as per claim 14; this claim is the software computer-readable medium claim for the method claim 5 above, and is rejected for the same reasons provided for the claim 5 rejection.

10. As per claim 6; "A method of processing packets at a host which are destined for a firewall in a packet-switched network comprising the steps of:

assigning a process group network address to a first outbound packet commencing a transient process;

transmitting the outbound packet to a firewall on its path to its destination in a packet-switched network;

receiving inbound packets addressed to the process group network address; and

authorizing, based on the process group network address and associating inbound packets addressed to the process group network address with the transient process [ABSTRACT, col. 1,lines 59-col. 2,line 41, col. 4,lines 17-col. 11,line 11, whereas this claim deals with the applicants invention from the point of view of the host forward of packets to the firewall, such

that the use of proxy to firewall connection functionality, as broadly interpreted by the examiner, encompasses these limitations, and further, "stateful" and dependency mask packet filtering aspects utilizing rules/rule sets that allow for "rule processing of subsequent packets" in multiple domain with "included" address ranges (i.e., group network address), and additionally the "session key" cache relationships to the rules searching, constitutes authorizing subsequent packet received as a function of a previous one going out.].";

Further, as per claim 15; this claim is the software computer-readable medium claim for the method claim 6 above, and is rejected for the same reasons provided for the claim 6 rejection..

11. Claim 7 ***additionally recites*** the limitation that; "The invention of claim 6 wherein the transient process is a connection across the packet-switched network to another host.".

The teachings of Coss et al suggest such limitations (ABSTRACT, col. 1,lines 59-col. 2,line 41, col. 4,lines 17-col. 11,line 11, figure 4 and accompanying description, whereas TELNET, email, etc., constitute connection across the packet-switched network to another host.);

Further, as per claim 16; this claim is the software computer-readable medium claim for the method claim 7 above, and is rejected for the same reasons provided for the claim 7 rejection.

12. Claim 8 ***additionally recites*** the limitation that; "The invention of claim 6 further comprising the step of

notifying the firewall when the transient process terminates.".

The teachings of Coss et al suggest such limitations (ABSTRACT, col. 1,lines 59-col. 2,line 41, col. 4,lines 17- col. 11,line 11, figure 4 and accompanying description, whereas the dependency mask packet filtering utilizing rules for the first packet of a network session, the "session key" cache relationships to the rules searching, FTP proxy session "made active for only a limited time", and "dynamic rules apply for the life of the session" aspects all deal with communications of information the firewall uses in it's filtering decisions, inclusive of decisions to terminate connections related to associated processes deal with this limitation.);

Further, as per claim 17; this claim is the software computer-readable medium claim for the method claim 8 above, and is rejected for the same reasons provided for the claim 8 rejection.

13. Claim 9 ***additionally recites*** the limitation that; "The invention of claim 6 wherein the host uses a dynamic host configuration protocol to dynamically assign the process group network address.".

The teachings of Coss et al suggest such limitations (ABSTRACT, col. 1,lines 59-col. 2,line 41, col. 4,lines 17- col. 11,line 11, figure 4 and accompanying description, whereas the network address translation aspects, and further, that the "dial-up access gateway" aspect (with DHCP as part of dial-up ISP support services) deal with this limitation.);

Further, as per claim 18; this claim is the software computer-readable medium claim for the method claim 9 above, and is rejected for the same reasons provided for the claim 9 rejection.

Response to Amendment

14. As per applicant's argument concerning the lack of teaching by Coss et al of "...wherein said process group network address is assigned to a transient host process group ...", the examiner has fully considered the arguments and finds them not to be persuasive. The use of the 'caching rule' processing utilized for similar packet processing on a per network session basis (i.e., col. 2,lines 5-41), the '... exemplary dynamic rules include a "one-time" rule ...' (i.e., col. 2,lines 29-41), and, '... FTP control session ... only a limited time period ...' (i.e., col. 9,lines 15-34), clearly encompasses the transient relationship (i.e., 'process group network address is assigned to a transient host process group') aspects, as broadly interpreted by the examiner, in that via the said rules, clearly the IP address(s) can be setup for a session based (inherently transient in this context) process (i.e., FTP).

As per applicant's argument concerning the lack of teaching by Coss et al of the group network address as a non-"hardware" type of address referencing, the examiner has fully considered the arguments and finds them not to be persuasive. Any addressing scheme on a network device, at the very least, is a hardware address per se, in that the said address is held in a register or memory within the some storage part of the network, clearly encompassing the transient relationship aspects, as broadly interpreted by the examiner.

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

16. Any inquiry concerning this communication or earlier communications from examiner should be directed to Ronald Baum, whose telephone number is (571) 272-3861, and whose unofficial Fax number is (571) 273-3861. The examiner can normally be reached Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh, can be reached at (571) 272-3795. The Fax number for the organization where this application is assigned is 703-872-9306.

Ronald Baum

Patent Examiner

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